# ZOOM

## Owner/Operator Manual

Models

915043 - 1540
915051 - 1640
915055 - 1944
915057 - 2148
915059 - 2352
915501 - 1844
915502 - 1540

GB ENGLISH
F FRANÇAIS
E ESPAÑOL

Transfer model & serial number label from product registration here.

Coller l'autocollant du modèle et du numéro de série dans cet encadré.
Transferir aquí la etiqueta del modelo y número de serie del registro del producto.

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Supersedes 00185900, A
Printed in USA

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P.O. Box 157
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# EC DECLARATION OF CONFORMITY ISSUED BY THE MANUFACTURER – DÉCLARATION DE CONFORMITÉ CE ÉMISE PAR LE FABRICANT – EU-ÜBEREINSTIMMUNGSERKLÄRUNG DES HERSTELLERS – VERKLARING VAN OVEREENSTEMMING VOOR DE EU, AFGEGEVEN DOOR DE FABRIKANT – EF OVERENSSTEMMELSESERKLÆRING UDSTEDT AF FABRIKANTEN – DICHIARAZIONE DI CONFORMITÀ CE RILASCIATA DAL PRODUTTORE – DECLARACIÓN DE CONFORMIDAD CE EMITIDA POR EL FABRICANTE – EF-SAMSVARSERKLÆRING FRA PRODUSENTEN – EG-DEKLARATIONEN OM ÖVERENSSTÄMMELSE UTFÄRDAD AV TILLVERKAREN – VALMISTAJAN ANTAMA EY-VAATIMUSTENMUKAISUUSVAKUUTUS – DEKLARACJA ZGODNOŚCI Z PRZEPISAMI EC WYDANA PRZEZ PRODUCENTA – DECLARAÇÃO DE CONFORMIDADE CE EMITIDA PELO FABRICANTE

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| | | |
|---|---|---|
| Type: – Type : – Typ:<br>Type: – Type: – Tipo:<br>Tipo: – Type: – Typ:<br>Tyyppi: – Typ: – Tipo: | Riding Rotary Lawn Mower – Tondeuse à gazon autoportée rotative – Aufsitz-Sichelmäher – Rijdende roterende grasmaaier – Havetraktor med roterende knive – Trattorino con unità di taglio rotativa – Tractor cortacésped giratorio – Plentraktor med rotorklipper – Rotoråkgräsklippare – Ajoleikkuri – Samobieżna rotacyjna kosiarka trawnikowa – Tractor Cortador de Relva – | |
| Trade Name: – Appellation commerciale : – Handelsbezeichnung: – Handelsnaam: – Firmanavn: – Nome commerciale: – Nombre comercial: – Handelsnavn: – Handelsbeteckning: – Kauppanimi: – Nazwa handlowa: – Nome da Marca: | **Ariens** | |
| Model: – Modèle : – Modell: – Model: – Model: – Modello: – Modelo: – Modell: – Modell: – Malli: – Model: – Modelo: | 915501 | 915502 |
| Cutting Width: – Largeur de coupe : – Schnittbreite: – Maaibreedte: – Klippebredde: – Larghezza di taglio: – Ancho de corte: – Klippebredde: Klippbredd: – Leikkuuleveys: – Szerokość cięcia: – Largura de corte: | 112 | 102 |

Conforms to: – Est conforme à : – Mit den Anforderungen der folgenden Richtlinien übereinstimmt: – Voldoet aan: – Er i overensstemmelse med: – È conforme a: – Cumple con: – Er i samsvar med: – Överensstämmer med: – Täyttää seuraavat vaatimukset: – Jest zgodny z: – De acordo com:

98/37/EC, 89/336/EEC;

2000/14/EC

Conformity Assessment Annex VI. – Annexe VI de l'évaluation de conformité. – Konformitätsbewertung, Anhang VI. – Bijlage VI voor beoordeling van overeenstemming. – Vurdering af overensstemmelse Anneks VI. – Annesso VI della valutazione di conformità. – Anexo VI de la evaluación de la conformidad. – Samsvarsvurdering etter vedlegg VI. – Bedömning av överensstämmelse Bilaga VI. – Vaatimustenmukaisuuden arviointi, liite VI. – Dodatek VI, Ocena zgodności. – Anexo VI da Avaliação de Conformidade.

| Representative Measured Sound Power Level ($L_{wa}$) – Niveau de puissance acoustique représentatif mesuré ($L_{wa}$) – Repräsentativer gemessener Geräuschpegel ($L_{wa}$) – Representatief gemeten geluidsniveau ($L_{wa}$) – Repræsentativt, målt støjeffektniveau ($L_{wa}$) Livello di – potenza sonora rappresentativo rilevato ($L_{wa}$) – Nivel de potencia acústica representativo medido ($L_{wa}$) – Representativt mått lydeffektnivå ($L_{wa}$) – Representativ uppmätt ljudnivå ($L_{wa}$) – Tyypillinen mitattu äänitehotaso ($L_{wa}$) – Zmierzony reprezentatywny poziom mocy akustycznej ($L_{wa}$) – Nível de Potência de Som Medido Representativo ($L_{wa}$) | Guaranteed Sound Power Level ($L_{wa}$) – Niveau de puissance acoustique garanti ($L_{wa}$) – Garantierter Geräuschpegel ($L_{wa}$) – Gegarandeerd geluidsniveau ($L_{wa}$) – Garanteret støjeffektniveau ($L_{wa}$) – Livello di potenza sonora garantito ($L_{wa}$) – Nivel de potencia acústica garantizado ($L_{wa}$) – Garantert lydeffektnivå ($L_{wa}$) – Garanterad uppmätt ljudnivå ($L_{wa}$) – Taattu äänitehotaso ($L_{wa}$) – Gwarantowany reprezentatywny poziom mocy akustycznej ($L_{wa}$) – Nível de Potência de Som Garantido ($L_{wa}$) |
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| 915501: 99 $dB_A$<br>915502: 99 $dB_A$ | 915501: 100 $dB_A$<br>915502: 100 $dB_A$ |

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|---|---|

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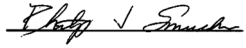

Ariens Company
Brillion, WI 54110-0157 USA
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12/10/2003
Date – Date – Datum – Datum – Dato – Data – Fecha – Dato – Datum – Päiväys – Data – Data

**CE Sound and Vibration – Bruits et vibrations CE – CE Geräusch- und Vibrationswerte – CE Geluid en trilling – CE støj og vibration – Livello sonoro e vibrazioni CE – Sonido y vibración CE – CE-lyd og -vibrasjon – CE ljudnivå och vibrationer – CE, melu ja tärinä – CE Dźwięku i Wibracji – Som e Vibração CE – (Ref. EN836-2001)**

| Model: – Modèle : – Modell: – Model: – Model: – Modello: – Modelo: – Modell: – Modell: – Malli: – Model: – Modelo: | | 915501 | 915502 |
|---|---|---|---|
| Oper. Ear Sound Pressure ($L_{pa}$) in $dB_A$ – Pression acoustique aux oreilles de l'opérateur ($L_{pa}$) en $dB_A$ – Geräuschpegel am Ohr des Bedieners ($L_{pa}$) in $dB_A$ – Geluidsdruk bij het oor van de gebruiker ($L_{pa}$) in $dB_A$ – Strøjtryk ved brugerens øre ($L_{pa}$) målt i $dB_A$ – Pressione sonora all'orecchio dell'operatore ($L_{pa}$) in $dB_A$ – Presión de sonido en el oído ($L_{pa}$) in $dB_A$ – Lydtrykk ved førerens øre ($L_{pa}$) inn $dB_A$ – Ljudeffekt vid förarens öron ($L_{pa}$) i $dB_A$ – Kuljettajan korvaan kohdistuva äänenpaine ($L_{pa}$), $dB_A$ – Robocze ciśnienie akustyczne na uchu ($L_{pa}$) w decybelach$_A$ – Oper. Pressão do Som no Ouvido ($L_{pa}$) em $dB_A$ – | | 86 | 87 |
| Vibration Measure ($m/sec^2$) at Operator: – Mesure des vibrations ($m/s^2$) au niveau de l'opérateur: – Vibration ($m/s^2$) an des Bedieners: – Gemeten trilling bij ($m/sec^2$): – Vibrationsmålinger ($m/s^2$) ved brugerens: – Vibrazioni percepite dall'operatore ($m/sec^2$): – Medida de vibración ($m/seg^2$) en el operador: – Vibrasjonsmåling ($m/s^2$) ved førerens: – Vibrationsmått ($m/s^2$) vid förarens: – Tärinä ($m/s^2$) kuljettajan: – Pomiar wibracji ($m/sec^2$) u operatora: – Medida de Vibração ($m/seg.^2$) no Operador: | | | |
| Hands – Mains – Hände – De handen van de gebruiker – Hænder – Mani – Manos – Hender – Händer – Käsissä – Ręce – Mãos – | **X** | 0.76 | 2.9 |
| | **Y** | 0.59 | 1.4 |
| | **Z** | 1.10 | 1.3 |
| Feet – Pieds – Füße – De voeten van de gebruiker – Fødder – Piedi –Pies – Føtter – Fötter – Jaloissa – Stopy – Pés – | **X** | 0.34 | 0.28 |
| | **Y** | 0.42 | 0.16 |
| | **Z** | 1.19 | 1.5 |
| Seat – Siège – Sitz – De bestuurdersplaats – Sæde – Sedile – Asiento – Sete – Säte – Istuimella – Siedzenie – Assento – | **X** | 0.35 | 0.43 |
| | **Y** | 0.37 | 0.29 |
| | **Z** | 0.87 | 0.91 |

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# INTRODUCTION

## THE MANUAL

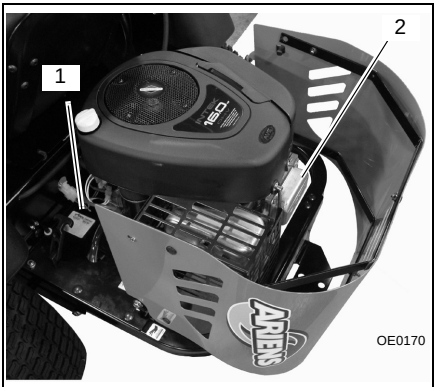
Before operation of unit, carefully and completely read your manuals. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

All reference to left, right, front, or rear are given from operator seated in operation position and facing the direction of forward travel.

## MODEL AND SERIAL NUMBERS

When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

Numbers are located on the product registration form in the unit literature package. They are printed on a serial number label, located on the frame of your unit (figure 1).




1. Unit Serial Number Label
2. Engine Serial Number Label

Figure 1

- Record Unit Model and Serial numbers here.

- Record Engine Model and Serial numbers here.

## PRODUCT REGISTRATION

The Ariens dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

**Customer Note:** If the dealer does not register your product, please fill out, sign, and return the product registration card to Ariens.

## UNAUTHORIZED REPLACEMENT PARTS

Use only Ariens replacement parts. The replacement of any part on this unit with anything other than an Ariens authorized replacement part may adversely affect the performance, durability, and safety of this unit and may void the warranty. Ariens disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

## DELIVERY

**Customer Note:** If you have purchased this product without complete assembly and instruction by your retailer, it is your responsibility to:

- Read and understand all assembly instructions in this manual. If you do not understand or have difficulty following the instructions, contact your nearest Ariens Dealer for assistance.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**NOTE:** To locate your nearest Ariens Dealer, call 1-800-678-5443 or go to www.ariens.com on the internet.

**WARNING:** Improper assembly or adjustments can cause serious injury.

### Before attempting to operate your unit:

1. Make sure all assembly has been properly completed.
2. Understand all Safety Precautions provided in the manuals.
3. Review control functions and operation of the unit. Do not operate the unit unless all controls function as described in this manual.
4. Review recommended lubrication, maintenance and adjustments.
5. Review Limited Warranty Policy.
6. Fill out a product registration card and return the card to the Ariens Company or go to www.ariens.com.

## DISCLAIMER

Ariens reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser.

The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit.

# SAFETY

**WARNING:** This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

Slopes are a major factor related to loss-of-control and tip-over accidents. Operation on all slopes requires extra caution.

Tragic accidents can occur if the operator is not alert to the presence of children. Never assume that children will remain where you last saw them.

Gasoline is extremely flammable and the vapors are explosive, handle with care.

Disengage attachment, stop unit and engine, remove key, engage parking brake, and allow moving parts to stop before leaving operator's position.

## SAFETY ALERTS

Look for these symbols to point out important safety precautions. They mean:

- **Attention!**
- **Personal Safety Is Involved!**
- **Become Alert!**
- **Obey The Message!**

The safety alert symbol is used in decals and with this manual. Understand the safety message. It contains important information about personal safety.

**DANGER:** IMMINENTLY HAZARDOUS SITUATION! If not avoided, WILL RESULT in death or serious injury.

**WARNING:** POTENTIALLY HAZARDOUS SITUATION! If not avoided, COULD RESULT in death or serious injury.

**CAUTION:** POTENTIALLY HAZARDOUS SITUATION! If not avoided, MAY RESULT in minor or moderate injury. It may also be used to alert against unsafe practices.

## NOTATIONS

**NOTE:** General reference information for proper operation and maintenance practices.

**IMPORTANT:** Specific procedures or information required to prevent damage to unit or attachment.

## SAFETY DECALS AND LOCATIONS

ALWAYS replace missing or damaged Safety Decals. Refer to figure 2 for Safety Decal locations.

## 1. Caution!

- Maximum Tongue weight: 30 lbs.
- Maximum Trailer weight: 300 lbs.
- Do not use hitch with bagger attached.
- Do not use on steep hills or slopes.
- Do not park on hills when trailer is attached.
- Do not use with any ground engaging equipment.

## 2. Danger!

OL1816

Avoid injury - Stay clear of rotating parts.

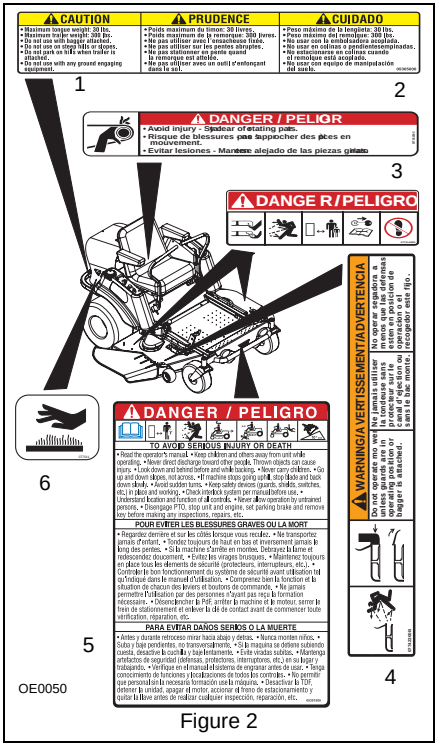



Figure 2

## 3. Danger!

OL1809

Always keep feet and hands away from rotating parts.

OL1810

Always stand clear of discharge area. Do not direct discharge toward other people.

OL18111

Keep people away from unit while operating.

OL1812

Shut off engine, remove key, and read manual before you adjust or repair unit.

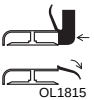
OL1813

NO STEP! Always keep feet away from rotating parts.

## 4. Warning!

OL1814

Always stand clear of discharge area.



OL1815

Do not operate mower unless bagger is attached or guards are in operating position.

## 5. Danger! To Avoid Serious Injury or Death

OL1801

Read the operator's manual.

OL1802

Keep children and others away from unit while operating.

OL1803

Never direct discharge toward other people. Thrown objects can cause injury.

OL1804

Look down and behind before and while backing.

OL1805

Never carry children.

OL1806

OL1807

Go up and down slopes, not across.
DO NOT operate on slopes over 10°.

- If machine stops going uphill, stop blade and back down slowly.
- Avoid sudden turns.
- Keep safety devices (guards, shields, switches, etc.) in place and working.
- Check interlock system per manual before use.
- Understand location and function of all controls.
- Never allow operation by untrained persons.
- Disengage PTO, stop unit and engine, set parking brake and remove key before making any inspections, repairs, etc.

### 6. Hot Surfaces!

OL1801

DO NOT touch parts which are hot from operation. ALWAYS allow parts to cool.

## SAFETY RULES

If unit is to be used by someone other than original purchaser; loaned, rented or sold, ALWAYS provide this manual and any needed safety training before operation.

Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Read, understand, and follow all safety practices in Owner/Operator Manual before assembling, using or working on this mower.

ALWAYS remove key from ignition and wire from spark plug before assembly, or working on this unit.

Inspect unit before each use for: missing or damaged decals and shields, correctly operating safety interlock system, and deterioration of grass catchers. Replace or repair as needed.

ALWAYS check overhead and side clearances carefully before operation. ALWAYS be aware of traffic when crossing or operating along streets or curbs.

Keep children, people, and pets away. Be alert and shut off unit if anyone enters work area. Keep children under watchful care of a responsible adult.

NEVER allow children to operate or play on or near unit.

Keep area of operation clear of all toys, and debris. Thrown objects can cause injury.

Stay alert for hidden hazards, holes, and ruts.

Avoid uneven or rough terrain. DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Dust, fog, etc. can reduce vision and cause an accident. Operate unit only when there is good visibility and light.

Data indicates that operators, age 60 and above, are involved in a larger percentage of riding mower related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

Only trained adults may operate unit. Training includes being familiar with controls and actual operation.

NEVER operate unit after or during the use of medication, drugs or alcohol.

NEVER allow anyone to operate this unit when their alertness or coordination is impaired.

Wear adequate safety gear, sturdy shoes, and protective gloves.

DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.

Protect eyes, face and head from objects that may be thrown from unit. Wear appropriate hearing protection. Always wear safety goggles or safety glasses with side shields when operating mower.

Avoid sharp edges. Sharp edges can cut. Moving parts can cut off fingers or a hand.

ALWAYS keep hands and feet away from all rotating parts during operation. Rotating parts can cut off body parts.

ALWAYS keep hands away from all pinch points.

Start and operate unit only when seated in operator's position. Steering control levers must be in neutral, PTO disengaged and parking brake set when starting engine.

ALWAYS keep body and hands away from pin holes or nozzles which eject hydraulic fluid under pressure.

DO NOT touch unit parts which might be hot from operation. Allow parts to cool before attempting to maintain, adjust or service.

NEVER place your hands or any part of your body or clothing inside or near any moving part while unit is running.

NEVER direct discharge towards persons or property. Thrown objects may ricochet back towards operator. ALWAYS stand clear of the discharge area.

ALWAYS disengage attachment, stop unit and engine, remove key, engage parking brake, and allow moving parts to stop before leaving operator's position.

Use extreme caution on gravel surfaces.

Disengage PTO when attachment is not in use and when crossing gravel surfaces.

DO NOT operate unit if safety interlock system is damaged or disabled. Check safety interlock before each use.

ALWAYS remove key to prevent unauthorized use.

DO NOT operate at too fast a rate. Slow down before turning.

Stop engine before removing grass catcher or unclogging chute.

DO NOT mow on wet grass. Reduced traction could cause sliding.

DO NOT try to stabilize the machine by putting your foot on the ground.

Know the weight of loads. Limit loads to those you can safely control and the unit can safely handle.

ALWAYS keep protective structures, guards and panels in good repair, in place and securely fastened.

**Do not operate without either entire grass catcher or the discharge guard in place.**

DO NOT operate in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing; especially for children.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability when using attachments.

NEVER carry passengers–especially children–even with blades off.

Use extra care when approaching blind corners or objects that may obscure vision of hidden obstacles and children.

If you cannot back up a slope or you feel uneasy on it, do not mow it.

Mow up and down slopes, not across them.

Use slow speed on any slope. Tires may lose traction on slopes even though the brakes are functioning properly.

Keep all movements on the slope *slow* and *gradual.* DO NOT make sudden changes in speed or direction.

Use extra care while operating machines with grass catcher or other attachments. They can affect stability of the machine.

Avoid starting, stopping, or turning on a slope. If tires lose traction, disengage the blades and proceed slowly *straight* down the slope.

DO NOT operate on slopes over 10°.

DO NOT park on slopes unless necessary. If unit is parked on a slope, ALWAYS chock or block wheels and set parking brake.

DO NOT disengage or bypass transmission and coast downhill.

Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.

Follow the manufacturer's recommendations for weight limits for towed equipment and towing on slopes.

NEVER allow children or others in or on towed equipment.

On slopes, the weight of the towed equipment may cause loss of traction and loss of control.

Travel slowly and allow extra distance to stop.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

DO NOT transport machine while engine is running.

ALWAYS turn off power to attachment and shut off fuel when transporting unit.

Keep unit free of grass clippings, leaves, and other debris. Clean up oil or fuel spills.

This product is equipped with an internal combustion type engine. DO NOT use unit on or near any unimproved, forest-covered or brush covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if it is used, must be maintained in effective working order by operator.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use an approved fuel container.

NO smoking, NO sparks, NO flames. ALWAYS allow engine to cool before servicing.

NEVER fill fuel tank when engine is running or hot from operation.

NEVER fill or drain fuel tank indoors.

NEVER overfill fuel tank.

Replace fuel cap securely and clean up spilled fuel.

NEVER fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

Explosive Gases from battery can cause death or serious injury. Poisonous battery fluid contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns.

NO flames, NO sparks, NO smoking near battery.

ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.

DO NOT TIP battery beyond a 45° angle in any direction.

ALWAYS keep batteries out of reach of children.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Reverse connections may result in sparks which can cause serious injury. Always connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.

ALWAYS disconnect negative (-) cable FIRST and positive (+) cable SECOND. ALWAYS connect positive (+) cable FIRST, and negative (-) cable SECOND.

A frozen battery can explode and result in death or serious injury. DO NOT charge or jump start a battery containing frozen fluid. Thaw the battery before putting on a charger or jump starting.

ALWAYS keep protective structures, guards, and panels in good repair, in place and securely fastened. NEVER modify or remove safety devices.

DO NOT change engine governor settings or over-speed engine.

Fumes from engine exhaust can cause injury or death. DO NOT run engine in an enclosed area. Always provide good ventilation.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.

Stop and inspect equipment if you strike an object or if there is an unusual vibration. Repair, if necessary, before restarting. Never make adjustments or repairs with the engine running.

Mower blades are sharp and can cut you. Wrap the blade(s) or wear gloves, and use extra caution when servicing them. NEVER weld or straighten mower blades.

Rotation of one blade may cause rotation of the other blades.

Check brake operation frequently. Adjust and service as required.

Keep all hardware properly tightened.

Stored energy in springs can cause injury.

Maintain or replace safety and instruction labels, as necessary.

Never store the machine or fuel container inside a building where there is an open flame, such as a water heater.

Shut off fuel (if provided) and allow engine to cool completely before storing in closed area or covering unit.

Clean grass and debris from unit, especially from around muffler and engine, to help prevent fires.

For extended storage, clean unit thoroughly. See Engine Manual for proper storage.

Use only attachments or accessories designed for your unit.

Check attachment components frequently. If worn or damaged, replace with manufacturer’s recommended parts.

# ASSEMBLY

**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

### Tools Required

- Adjustable wrench
- Petroleum jelly or dielectric grease.

### Unpack Unit

Remove unit and all other components from the shipping container. Engage transmission bypass lever (see *Moving the Unit Manually* on page 14). Push unit from container onto a level surface. Disengage transmission bypass lever.

### Connect Battery

See *Battery Removal and Installation* on page 22 and perform steps 2 and 3 in the installation section.

### Place Unit in Operating Position (figure 3):

1. Tip seat back.

**NOTE:** Models 915501 and 502 must use the flat washer and nut to secure the seat to the unit.

2. Secure seat to unit with clamping knob (915043, 051, 055, 057, 059) or flat washer and nut (915501, 502) (located in literature pack).
3. Install steering levers on the inside of the handlebar brackets with mounting hardware.
4. Adjust steering levers (see *Steering Lever Adjustments* on page 23).

### Check Engine Oil Level

Refer to Engine Manual.

### Check Tire Pressure

See *Specifications* on page 30.

### Level Mower Deck

See *Level and Adjust Pitch of Mower Deck* on page 19.

### Fill Fuel Tanks

See *Filling the Fuel Tanks* on page 14.

### Adjust Seat

See *Seat Adjustment* on page 14.

### Check Safety Interlock System

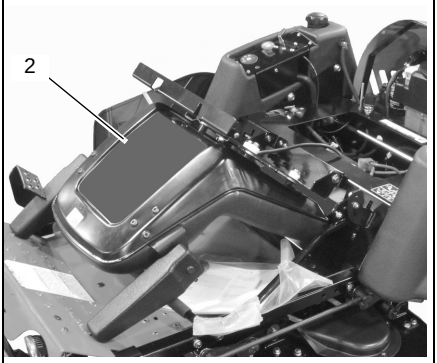
**WARNING:** Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

See *Safety Interlock System* on page 11.

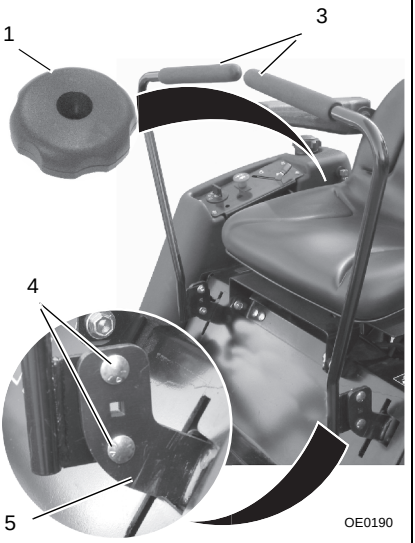
### Check function of all controls

See *Operation* on page 11.

**Shipping Position**




**Operating Position**




1. Clamping Knob (915043, 051, 055, 057, 059) or flat washer and nut (915501, 502)
2. Seat
3. Steering Lever
4. Mounting Hardware
5. Handlebar Brackets

Figure 3

# CONTROLS AND FEATURES

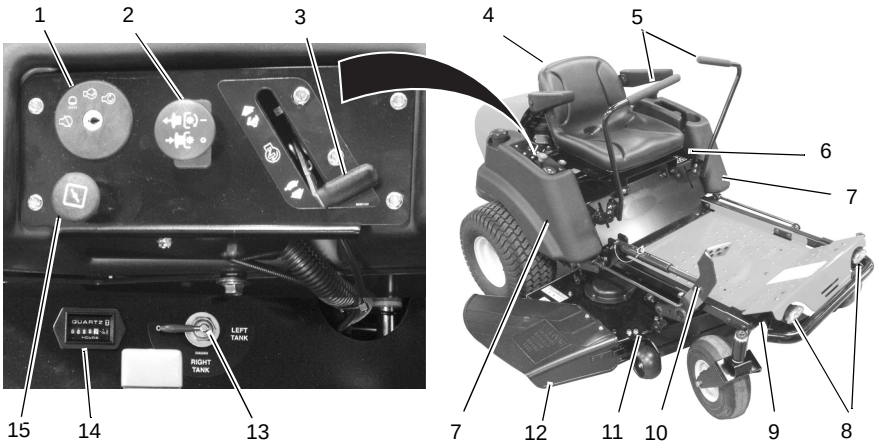



Figure 4 OE0220

1. Ignition Switch
2. PTO Switch
3. Throttle Lever
4. Seat
5. Steering Levers
6. Parking Brake
7. Fuel Tanks
8. Headlights (915051, 055, 057, 059, 501)
9. Axle Lock (915051, 055, 057, 059, 501)
10. Mower Lift Pedal
11. Mower Deck
12. Discharge Chute
13. Fuel Shut-Off Valve
14. Hour meter (915051, 055, 057, 059, 501, and optional on 915043, 502)
15. Choke Control (915055, 057, 059, 501)

# OPERATION

**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

## CONTROLS AND FEATURES

See figure 4 for all controls and features locations.

### Safety Interlock System

**WARNING:** Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

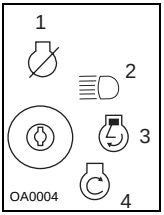
Perform the following tests to ensure the safety interlock system is working properly. If the unit does not perform as stated contact your Ariens dealer for repairs.

| Test | Steering Lever | PTO | Parking Brake | Engine |
|---|---|---|---|---|
| 1 | Neutral Lockout Position | Off | Engaged | Starts |
| 2 | Forward | Off | Engaged | Doesn't Start |
| 3 | Neutral Lockout Position | On | Engaged | Doesn't Start |
| 4 | Out of Neutral Lockout Position | Off | Disengaged | Doesn't Start |
| 5*+ | Reverse | Off | Disengaged | Shuts Off |

| Test | Steering Lever | PTO | Parking Brake | Engine |
|---|---|---|---|---|
| 6*+ | Neutral Lockout Position | On | Engaged | Shuts Off |
| 7*+ | Out of Neutral Lockout Position | Off | Disengaged | Shuts Off |

* Test with engine running.
\+ Operator lifts off seat.

### Ignition Switch




Operate ignition switch with a removable key. Ignition switch has four positions: Stop (1), Headlight (2), Run (3), Start (4). See *Starting and Shutting Off Engine* on page 14 for detailed instructions on how to start engine.

### Throttle Lever (915043, 051, 502)

Choke (1) – Use to start a cold engine.

Fast (2) – Increases engine speed.

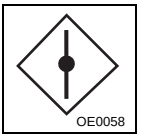
Slow (3) – Decreases engine speed.

### Throttle Lever (915055, 057, 059, 501)

Fast (1) – Increases engine speed.

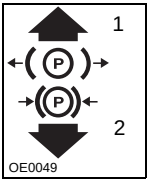
Slow (2) – Decreases engine speed.

### Choke Control (915055, 057, 059, 501)



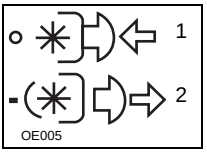

Use to start a cold engine. Pull choke control out to choke engine. Push choke control in when engine is warm.

### Parking Brake



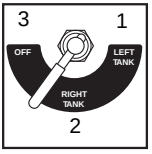

Engages (2) and disengages (1) parking brake.

### Power Take-Off (PTO) Switch




Engages (2) and disengages (1) mower blades.

### Fuel Shut-Off Valve

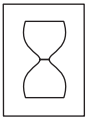



OF1881

Controls fuel flow from left fuel tank (1) or right fuel tank (2).

Open the valve to operate the engine. Turn the valve to off (3) when storing or transporting the unit.

### Hour Meter (915051, 055, 057, 059, 501, and Optional on 915043, 502)

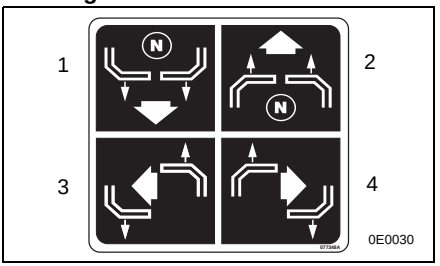


OF1881

Records total number of hours engine has been run.

**NOTE:** Hour meter will continue to run if ignition key is left in the run position with the engine turned off.

### Steering Levers




- Reverse (1) – Pull both steering levers backward.

- Forward (2) – Push both steering levers forward.
- Left (3) – Pull left steering lever back or push right steering lever forward or a combination of both.
- Right (4) – Pull right steering lever back or push left steering lever forward or a combination of both.

**NOTE:** To stop, return both steering levers to neutral.

**NOTE:** The steering levers must be in the neutral lockout position to start the engine (figure 5).

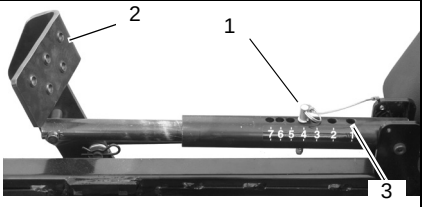
**NOTE:** The parking brake must be disengaged prior to moving the steering levers from the neutral lockout position (figure 5).

Steering Levers in the Neutral Lockout Position

Figure 5 OE0057

## Mower Lift Pedal (Figure 6)

Raises and lowers mower deck.




1. Adjustment Pin
2. Mower Lift Pedal
3. Adjustment Hole

Figure 6 OE0060

**NOTE:** The adjustment pin is used to set the height of the mower deck. See *Specifications* on page 30 for cutting height dimensions.

Press mower lift pedal and install adjustment pin in the desired adjustment hole.

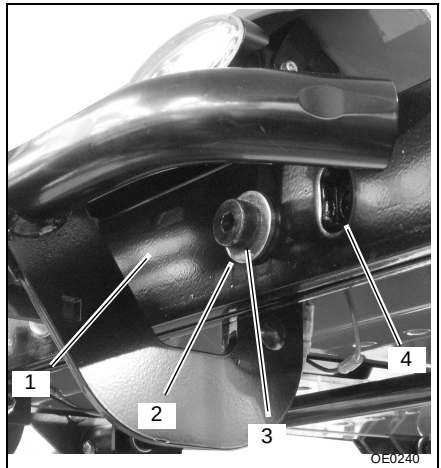
**NOTE:** Adjusting the seat further forward will help increase the leverage in lifting the mower deck (see *Seat Adjustment* on page 14).

## Axle Locks (915051, 055, 057, 059, 501) (Figure 7)

**NOTE:** The unit comes shipped with the front axle in the lockout position.

If a pivoting front axle is needed: Remove axle lock hardware from lockout position and install axle lock hardware in pivoting position on both sides of front axle.

**NOTE:** To lock front axle, install axle lock hardware in the lockout position on both sides of the axle.

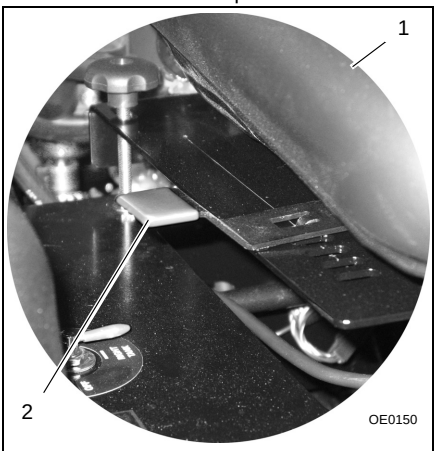



1. Front Axle
2. Lockout Position
3. Axle Lock Hardware
4. Pivoting Position

Figure 7

## SEAT ADJUSTMENT

Lift adjustment lever and slide seat forward or backward to the desired position.




1. Seat
2. Adjustment Lever

Figure 8

## FILLING THE FUEL TANKS

1. Clean fuel caps and surrounding area to prevent dust, dirt, and debris from entering fuel tanks.
2. Remove fuel caps.

**IMPORTANT:** See Engine Manual for correct type and grade of fuel.

3. Fill fuel tanks to 1/2 in. (1.3 cm) below bottom of filler neck. See *Specifications* on page 30 for capacity of fuel tanks.
4. Replace fuel caps.

## STOPPING IN AN EMERGENCY

Bring steering levers back to neutral, set parking brake, and turn off engine.

## STARTING AND SHUTTING OFF ENGINE

### Starting the Engine

**NOTE:** The PTO must be disengaged and the steering levers in the neutral lockout position (see *Steering Levers* on page 12) prior to starting the engine.

1. Set throttle lever to choke (915043, 051, 502) or engage choke control (915055, 057, 059, 501) for a cold engine. Set throttle lever at 1/3 throttle for a warm engine.

**IMPORTANT:** DO NOT operate starter for more than 15 seconds per minute as damage can occur.

2. Turn ignition key to start position and release once the engine has started.
3. After engine starts, set throttle lever to fast. Disengage choke control (915055, 057, 059, 501).

**IMPORTANT:** Let the engine warm up several seconds to several minutes depending on outside temperature.

### Stopping the Engine

1. Stop unit.
2. Disengage PTO.
3. Set throttle lever to slow.
4. Turn ignition switch to off position and remove key.
5. Set parking brake.

## OPERATING MOWER

1. Start engine.
2. Set throttle lever to fast.

**IMPORTANT:** Never engage PTO if mower is plugged with grass or other material.

3. Engage PTO to start mower blades.

**NOTE:** The parking brake must be disengaged prior to moving the steering levers from the neutral lockout position.

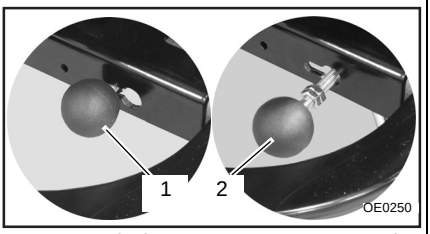
4. Release parking brake.
5. Use steering levers to move the unit.
6. Disengage PTO to stop mower blades.

## MOVING THE UNIT MANUALLY

Disengage (2) transmission bypass levers to drive unit and engage (1) transmission bypass levers to push unit manually (figure 10).

**NOTE:** See figure 9 for bypass lever locations on models 915051, 055, 057, 059, 501. See figure 11 for bypass lever locations on models 915043 and 502.

**Models 915051, 055, 057, 059, 501**




1. Transmission Bypass Lever Engaged
2. Transmission Bypass Lever Disengaged

Figure 9

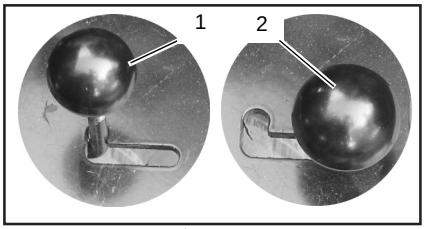
**WARNING:** DO NOT disengage or bypass transmission and coast downhill.

**Models 915051, 055, 057, 059, 501**

**Models 915043 and 502**

Figure 10

**Models 915043 and 502**



1. Transmission Bypass Lever Engaged
2. Transmission Bypass Lever Disengaged

Figure 11

## TRANSPORTING UNIT

ALWAYS shut off engine, set parking brake, remove key, and close fuel shut-off valve or drain fuel when transporting unit on a truck or trailer. Tie unit down securely. Do not tie down by linkages, guards, cables or other parts that may be damaged.

## FOR BEST PERFORMANCE

Cut grass when it is dry.

Keep mower blades sharp.

Keep mower deck properly leveled.

Adjust anti-scalp rollers to prevent scalping.

Do not set height of cut too low. For very tall grass, mow twice.

Do not travel too fast.

Mow with the engine set at full throttle.

When mulching, only remove 1/3 of grass length per cutting.

Discharge clippings into areas already cut.

Vary cutting pattern with each mowing.

Do not allow grass or debris to collect inside of mower deck. Clean after each use.

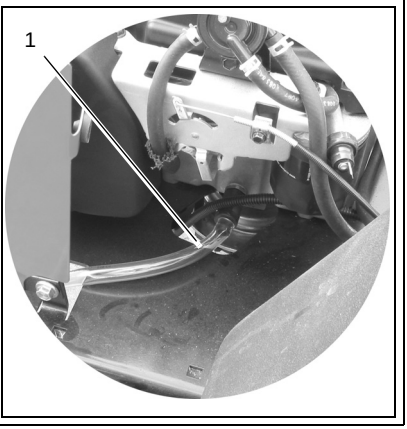
# MAINTENANCE SCHEDULE

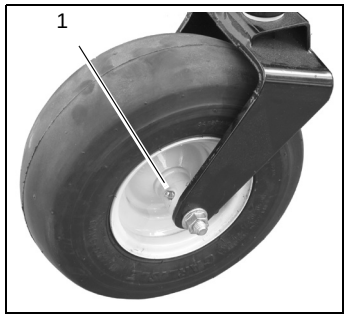
**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

**IMPORTANT:** Proper maintenance can prolong the life of unit. The following chart shows the recommended service schedule. Refer to the maintenance instructions in the Engine Manual for additional information.

**NOTE:** To have full access to the engine, the seat must be tipped forward (see *Tipping the Seat Forward* on page 17) and the hood opened (see *Opening and Closing the Hood* on page 18).

| Interval | Task | Action |
|---|---|---|
| **Each Use** | Check Safety Interlock System | **WARNING:** Safety interlock system failure and improper operation of unit can result in death or serious injury. Test this system each time the unit is operated. If this system does not function as described, do not operate until repairs are made (see *Safety Interlock System* on page 11). |
| | Check Parking Brake | Engage parking brake and engage transmission bypass lever (see *Moving the Unit Manually* on page 14). Push unit. If unit rolls, contact your Ariens Dealer. |
| | Clean Unit | Clean engine, battery, seat, mower deck, etc. of all dirt and debris. Do not use solvents, hard cleaners, or abrasives.<br>**NOTE:** Protect painted surfaces with automotive type wax. |
| | Check Tires | See *Specifications* on page 30 for correct tire pressure. |
| | Check Mower Blades | Check for worn or damaged mower blades (see *Sharpening Mower Blade* on page 20). |
| | Follow Engine Manual Maintenance Schedule | Perform scheduled engine maintenance. Refer to Engine Manual for detailed instructions.<br>**NOTE:** To drain the oil, use the oil drain petcock (1) supplied with unit, not the drain plug that is shown in the Engine Manual. |



| Interval | Task | Action |
|---|---|---|
| **25 Hours or Every Season** | Check Battery | Keep battery and battery terminals clean (see *Cleaning Battery and Battery Cables* on page 22). |
| | Lubricate Unit | Apply grease to zerk (1) on each front wheel   |
| **50 Hours or Every Season** | Check Fasteners | Check mower blade mounting hardware and all other fasteners. Replace fasteners that are missing or damaged. Tighten all nuts and bolts to the correct torque value. |
| **100 Hours or Every Season** | Check All Belts | Replace worn or deteriorated belts.<br>• Check hydrostatic belt (see *Hydrostatic Belt Replacement* on page 25 for hydrostatic belt location).<br>• Check PTO belt (see *PTO Belt Replacement* on page 24 for PTO belt location). |
| | Check Mower Blade Stopping Time | See *Test Mower Blade Stopping Time* on page 25 (915051, 055, 057, 059, 501). |

# SERVICE AND ADJUSTMENTS

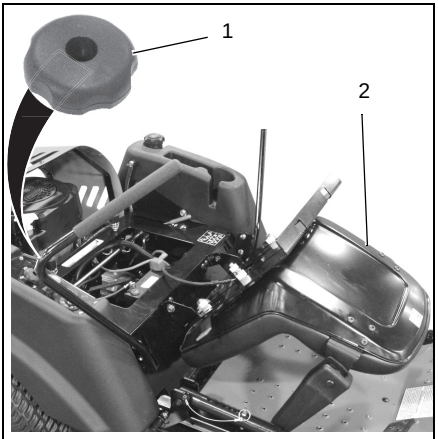
**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

## TIPPING THE SEAT FORWARD

Remove clamping knob (915043, 051, 055, 057, 059) or flat washer and nut (915501, 502) and tip seat forward to access the battery and engine.

**NOTE:** Models 915501 and 502 must use the flat washer and nut to secure the seat to the unit.

Tip seat back and secure to unit with clamping knob (915043, 051, 055, 057, 059) or flat washer and nut (915501, 502) (figure 12).



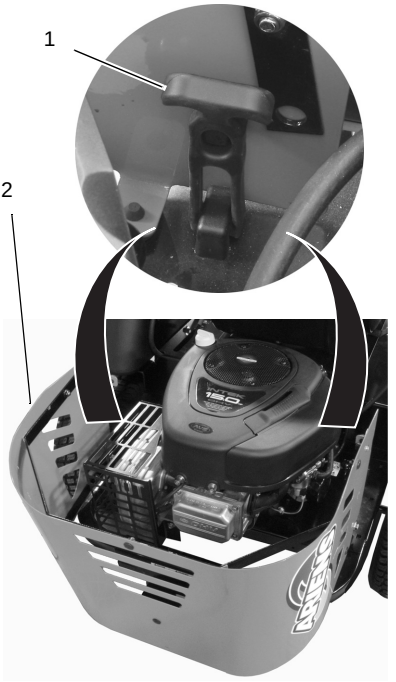

1. Clamping Knob (915043, 051, 055, 057, 059) or flat washer and nut (915501, 502)
2. Seat Tipped Forward

OE0300

Figure 12

## OPENING AND CLOSING THE HOOD

Unhook the two rubber latches to tip hood back. Close hood and secure with rubber latches (figure 13).




1. Rubber Latch
2. Hood Tipped Open

Figure 13 OE0130

## REMOVE MOWER DECK

### Remove (Figure 14)

1. Remove PTO belt from electric clutch (see *PTO Belt Replacement* on page 24).

**NOTE:** Perform step 2 and 3 for the right and left side of unit.

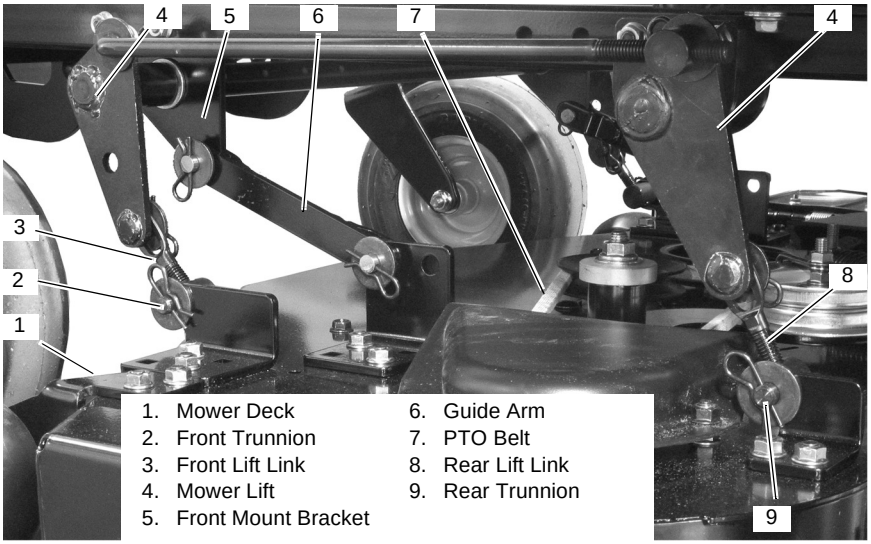
2. Remove guide arm from front mount bracket.
3. Remove rear lift link, rear trunnion, front lift link, and front trunnion from mower deck and mower lift.
4. Slide mower deck out from under unit.

### Install (Figure 14)

1. Slide mower deck under unit.

**NOTE:** Perform step 2 and 3 for the right and left side of unit.

2. Install rear lift link, rear trunnion, front lift link, and front trunnion on mower deck and mower lift.
3. Install guide arm on front mount bracket.
4. Install PTO belt on electric clutch (see *PTO Belt Replacement* on page 24).




1. Mower Deck
2. Front Trunnion
3. Front Lift Link
4. Mower Lift
5. Front Mount Bracket
6. Guide Arm
7. PTO Belt
8. Rear Lift Link
9. Rear Trunnion

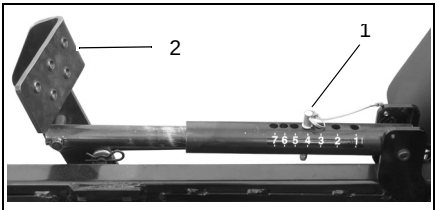
Figure 14 OE0230

## LEVEL AND ADJUST PITCH OF MOWER DECK

Adjust on a level surface, with the tires inflated to the correct air pressure (see *Specifications* on page 30).

### Level Mower Deck

1. Install adjustment pin in the fourth adjustment hole (figure 15).



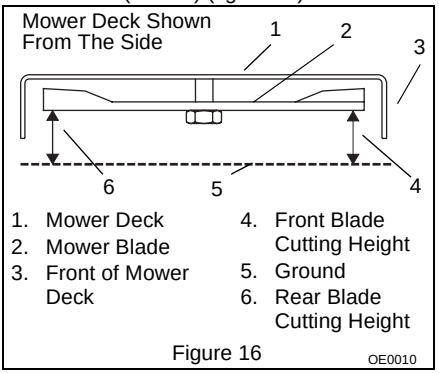

1. Adjustment Pin
2. Mower Lift Pedal

Figure 15 OE0060

2. Rotate the right and left mower blades until the ends of both mower blades are facing rearward (figure 16).

**NOTE:** The rear blade cutting height should be 2-7/8 to 3 in. (7.3 to 7.6 cm) from rear edge of mower blades to the ground on both blades (figure 16).

**IMPORTANT:** The distance from rear edge of mower blades to the ground MUST NOT exceed 3 in. (7.6 cm) (figure 16).




1. Mower Deck
2. Mower Blade
3. Front of Mower Deck
4. Front Blade Cutting Height
5. Ground
6. Rear Blade Cutting Height

Figure 16 OE0010

3. Measure from rear edge of mower blades to the ground (figure 16).
4. Perform steps 5 through 7 if the measurement is too high or too low on either side of mower deck.
5. Remove rear lift link and rear trunnion from mower deck and mower lift (figure 14).
   - TO RAISE the mower deck, turn rear trunnion clockwise several turns.
   - TO LOWER the mower deck, turn rear trunnion counterclockwise several turns.
6. Install rear trunnion and rear lift link on mower deck and mower lift (figure 14).

7. Check that the mower deck is level:
   a. Rotate right and left mower blades to face side-to-side.
   b. Measure outer edge of mower blades to ground. Measurement must be within 1/4 inch (6.35 mm).
   - If mower deck is not level, repeat steps 5 and 6.
   - If mower deck is level, record the distance from rear edge of mower blades to the ground and then adjust pitch of mower deck.

### Adjust Pitch of Mower Deck

**IMPORTANT:** The mower blade end used to level the mower deck must be used to adjust the pitch of the mower deck.

1. Rotate the right and left mower blades 180 degrees until the end of the mower blade that was used to level the mower deck is facing forward (figure 16).

**NOTE:** The front blade cutting height should be 1/16 - 1/4 in. (1.59 - 6.35 mm) lower than the rear blade cutting height (figure 16).

2. Measure from front edge of right and left mower blades to the ground.
3. Subtract front blade cutting height measurement from rear blade cutting height measurement (figure 16).
4. Perform steps 5 through 7 if the front blade cutting height is too high or too low on either side on either side of mower deck.
5. Remove front lift link and front trunnion from mower deck and mower lift (figure 14).
   - TO RAISE the mower deck, turn front trunnion clockwise several turns.
   - TO LOWER the mower deck, turn front trunnion counterclockwise several turns.
6. Install front trunnion and front lift link on mower deck and mower lift (figure 14).
7. Check mower deck pitch.
   - If mower deck pitch is not correct, repeat steps 2 through 6.
   - If mower deck pitch is correct, the adjustment is complete.

## MOWER BLADE REPLACEMENT

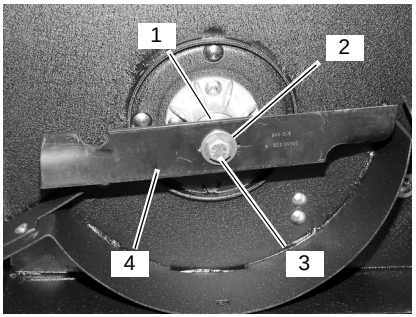
### Remove (Figure 17)

**CAUTION:** Mower blades are sharp and can cut you. Wrap the blades or wear gloves, and use extra caution when servicing them.

1. Block mower blades to prevent rotation.
2. Remove mounting hardware and mower blades from mower deck.

### Install (Figure 17)

1. Install mower blades on mower deck with mounting hardware.
2. Torque 5/8-inch hex bolt to 80 to 120 lbf-ft (108 to 163 N•m).




1. Flat Washer
2. Bevel Washer
3. 5/8-inch Hex Bolt
4. Mower Blade

Figure 17 OE0039

## SHARPENING MOWER BLADE

**CAUTION:** DO NOT sharpen mower blade while on unit. An unbalanced mower blade will cause excessive vibration and eventual damage to unit. Check mower blade balance prior to reinstalling mower blades.

NEVER weld or straighten mower blades.

1. Remove mower blade from unit (see *Mower Blade Replacement* on page 20).

Ariens recommends having mower blades sharpened by a professional. Contact your Ariens dealer.

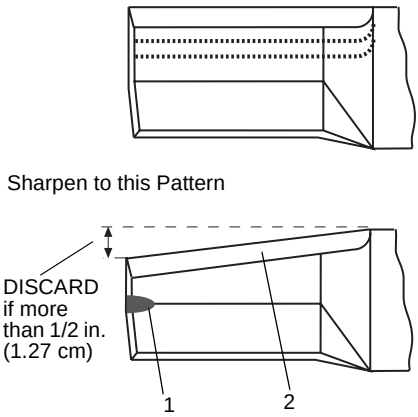
Discard mower blade if (figure 18):

- more than 1/2 in. (1.27 cm) of metal is removed.
- the air lift erosion area is eroded.
- the mower blade is bent or broken.

Do not change angle of cutting edge or round the corner at the end of mower blade.

2. Sharpen mower blade by removing an equal amount of material from each end of mower blade.

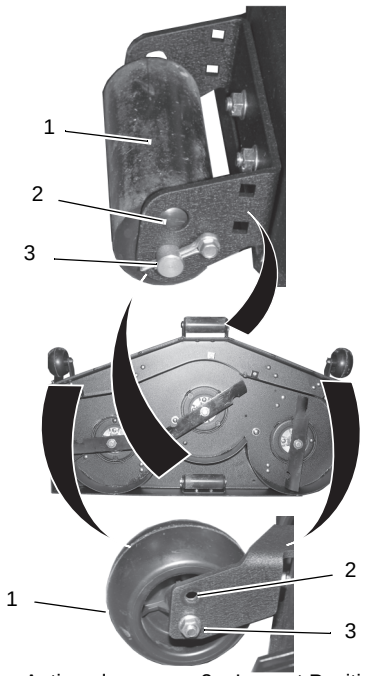
3. Check mower blade balance by sliding mower blade on an unthreaded bolt. If blade is balanced, it should remain in a horizontal position. If either end of mower blade moves downward, sharpen the heavy end until mower blade is balanced.
4. Install mower blade on unit (see *Mower Blade Replacement* on page 20).




1. Air Lift Erosion Area
2. Cutting Edge

Figure 18 OE0052

**Models 915051, 055, 057, 059, 501**




1. Anti-scalp Roller
2. Lowest Position
3. Highest Position

Figure 19 OE0038

## ANTI-SCALP ROLLER ADJUSTMENT

**NOTE:** The anti-scalp rollers are intended to prevent lawn scalping, not to control cutting height. All anti-scalp rollers should be set at the same height.

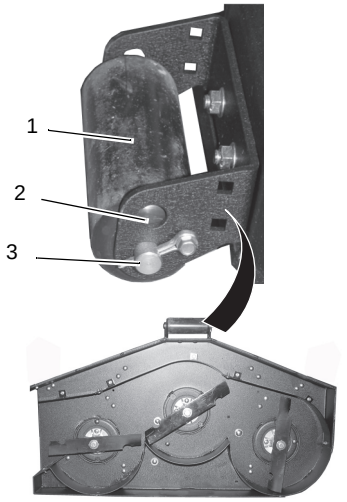
See figure 19 for anti-scalp locations on models 915051, 055, 057, 059, 501. See figure 20 for anti-scalp locations on models 915043 and 502.

There are two positions:

- Highest Position: Use to disable anti-scalp feature.
- Lowest Position: Use for all cutting positions.

In the lowest position the anti-scalp rollers will touch the ground.

**Models 915043 and 502**




1. Anti-scalp Roller
2. Lowest Position
3. Highest Position

Figure 20 OE0310

## SERVICING THE BATTERY

**NOTE:** Unit comes equipped with a maintenance-free battery that requires no regular maintenance except cleaning the terminals.

**WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

### Battery Removal and Installation

### Remove (Figure 21)

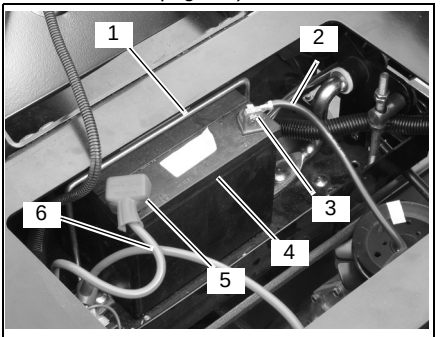
1. Tip seat forward (see *Tipping the Seat Forward* on page 17).
2. Disconnect negative (–) cable first, then positive (+) cable.
3. Remove battery hold-down bracket and battery from unit.

### Install (Figure 21)

1. Install battery on the unit with battery hold-down bracket.
2. Connect positive (+) cable first, then negative (–) cable.
3. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.
4. Tip seat back (see *Tipping the Seat Forward* on page 17).

### Cleaning Battery and Battery Cables (Figure 21)

1. Tip seat forward (see *Tipping the Seat Forward* on page 17).
2. Disconnect negative (–) cable first, then positive (+) cable.
3. Clean battery cable ends, negative (–) terminal, and positive (+) terminal with a wire brush and rinse with a weak baking soda solution.
4. Connect positive (+) cable first, then negative (–) cable.
5. Apply petroleum jelly or dielectric grease to battery cable ends and terminals.
6. Tip seat back (see *Tipping the Seat Forward* on page 17).




1. Battery Hold-Down Bracket
2. Negative (–) Cable
3. Negative (–) Terminal
4. Battery
5. Positive (+) Terminal
6. Positive (+) cable

Figure 21 OE0120

### Charging the Battery (Figure 21)

**WARNING: FROZEN BATTERIES CAN EXPLODE** and result in death or serious injury. DO NOT charge a frozen battery. Let the battery thaw before charging.

Follow First Aid directions for contact with battery fluid.

- External Contact: Flush with water.
- Eyes: Flush with water for at least 15 minutes and get medical attention immediately!

- Internal Contact: Drink large quantities of water. Follow with Milk of Magnesia, beaten egg or vegetable oil. Get medical attention immediately!
- In case of internal contact, DO NOT induce vomiting!

**IMPORTANT:** DO NOT fast charge. Charging at a higher rate will damage or destroy battery.

**IMPORTANT:** ALWAYS follow information provided on battery and battery charger. Contact battery and battery charger manufacturers' for detailed instructions.

1. Remove battery from unit (see *Battery Removal and Installation* on page 22).
2. Place battery in a well-ventilated area.
3. Connect positive (+) lead of charger to positive (+) terminal, and negative (–) lead of charger to negative (–) terminal.
4. Charge battery according to battery charger and battery manufacturers' instructions.
5. Install battery on unit (see *Battery Removal and Installation* on page 22).

### Jump Starting the Battery (Figure 21)

**IMPORTANT:** The unit used for jump starting should have a 12 volt battery with at least 500 cold cranking amperes, and a negatively grounded system.

**IMPORTANT:** Ensure battery is not frozen. If the battery is frozen, remove battery from unit and allow battery to thaw before charging.

1. Connect positive (+) jumper cable to positive (+) terminal of discharged battery.
2. Connect the other end of positive (+) jumper cable to positive (+) terminal of booster battery.
3. Connect negative (–) jumper cable to negative (–) terminal of booster battery.
4. Connect the other end of negative (–) jumper cable to engine of unit with discharged battery.

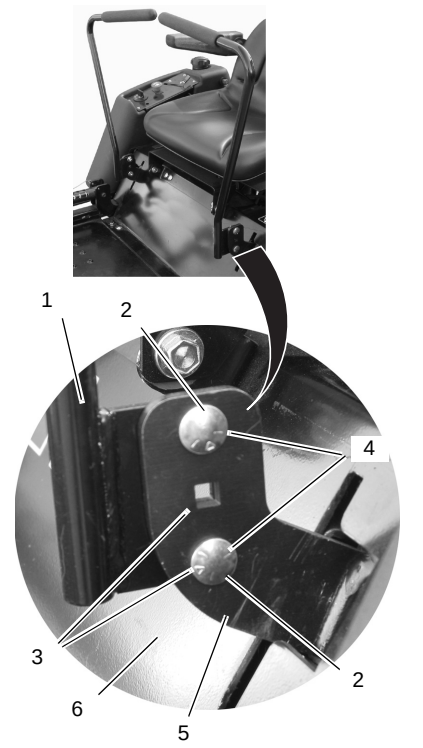
**WARNING:** Make sure cables are clear of any moving engine parts before starting engine.

**NOTE:** If engine will not start, unit or battery may need service.

5. Start engine.
6. After engine starts, leave jumper cables connected for one to two minutes.
7. Disconnect jumper cables in reverse order of installation.
8. Operate unit as normal to charge battery.

## STEERING LEVER ADJUSTMENTS

### Adjusting Steering Levers to Match (Figure 22)




1. Steering Levers
2. Mounting Hardware
3. Low Position
4. High Position
5. Handlebar Weldment
6. Seat Support

Figure 22 OE0046

**NOTE:** Each steering lever can be positioned further forward or further backward.

1. Loosen mounting hardware.
2. Position steering levers to match.
3. Tighten mounting hardware.

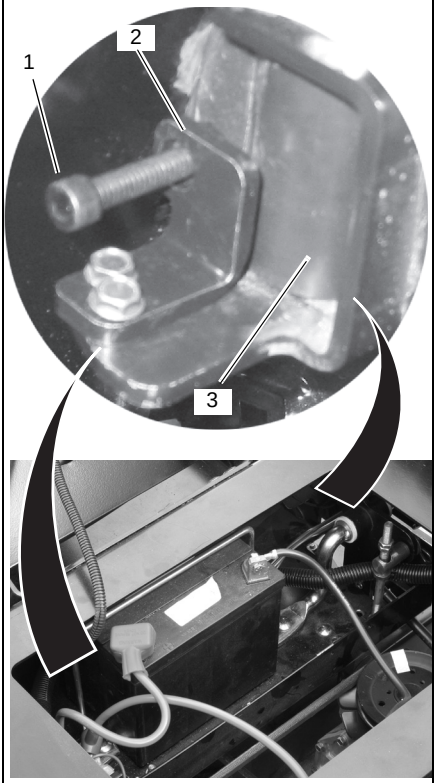
### Adjusting Height of Steering Levers (Figure 22)

There is a low and a high position for steering levers. Remove mounting hardware and place steering levers in the low or high position. Tighten mounting hardware.

### Handlebar Stop Adjustment (Figure 22 and 23)

**NOTE:** If either side of handlebar weldment is rubbing on seat support the handlebar stop needs adjustment.

Turn adjustment screw clockwise or counterclockwise until handlebar weldment does not rub on seat support.




1. Adjustment Screw
2. Handlebar Stop
3. Handlebar Weldment

Figure 23 OE0046

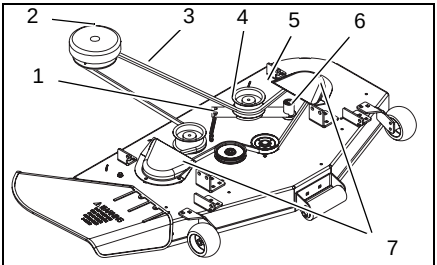
## PTO BELT REPLACEMENT

### Remove (Figure 24)

1. Lower mower deck to the ground.
2. Remove belt covers from mower deck.

> **CAUTION:** Use care when releasing idler spring tension. Keep body parts well away from idler when performing this operation.

3. Hook a puller into idler hole and pull idler arm towards outside of unit until tension is removed from PTO belt.




1. Idler Spring
2. Electric Clutch
3. PTO Belt
4. Idler Hole
5. Idler Pulley
6. Idler Arm
7. Belt Cover

Figure 24 OE0080

4. Remove PTO belt from left mower deck pulley.
5. Slowly release idler arm until tension is removed from idler spring.
6. Remove PTO belt from mower deck and electric clutch.

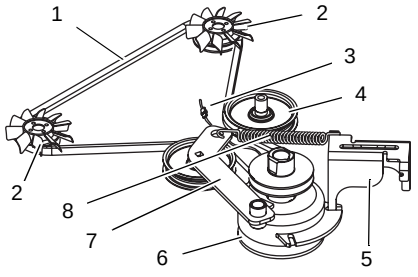
### Install (Figure 24)

**NOTE:** Do not install PTO belt on left mower deck pulley in step 1.

1. Install PTO belt on electric clutch and mower deck.
2. Hook a puller into idler hole and pull idler arm towards outside of unit until PTO belt can be routed around left mower deck pulley.
3. Slowly release idler arm until idler pulley rests firmly against PTO belt.
4. Install belt covers on mower deck.

## HYDROSTATIC BELT REPLACEMENT

### Remove (Figure 25)




1. Hydrostatic Belt
2. Hydrostatic Transmission Pulley
3. Electric Clutch Connector
4. Pulley
5. Clutch Stop
6. Electric Clutch
7. Idler
8. Idler Spring

Figure 25 OE0051

1. Remove PTO belt (see *PTO Belt Replacement* on page 24).
2. Disconnect electric clutch connector.
3. Remove clutch stop.

**CAUTION:** Use care when releasing idler spring tension. Keep body parts well away from idler when performing this operation.

4. Disconnect idler spring.
5. Remove hydrostatic belt from hydrostatic transmission pulleys, pulley, electric clutch, and idler.

### Install (Figure 25)

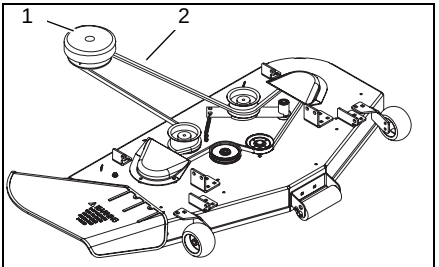
1. Install hydrostatic belt on idler, electric clutch, pulley, and hydrostatic transmission pulleys.
2. Connect idler spring.
3. Install clutch stop.
4. Connect electric clutch connector.
5. Install PTO belt (see *PTO Belt Replacement* on page 24).

## ELECTRIC CLUTCH ADJUSTMENT

### (915051, 055, 057, 059, 501)

**WARNING:** The mower blades MUST STOP in 5 seconds or less when the PTO is disengaged. Adjust or replace electric clutch as required.

### Test Mower Blade Stopping Time (Figure 26)




1. Electric Clutch
2. PTO Belt

Figure 26 OE0080

To determine if the PTO stops the mower blades within 5 seconds or less, measure the amount of time from when the PTO is shut off to when the PTO belt stops rotating.

1. Lower mower deck to the lowest position.
2. Start engine and set throttle lever to fast.
3. Engage PTO to start mower blades.
4. Shut off PTO and simultaneously start measuring the amount of time it takes for the PTO belt to stop rotating.
   - If the PTO belt stops rotating in 5 seconds or less, the electric clutch does not need to be adjusted.
   - If the PTO belt does not stop in 5 seconds or less, adjust the electric clutch.

### Adjust Electric Clutch (Figure 27)

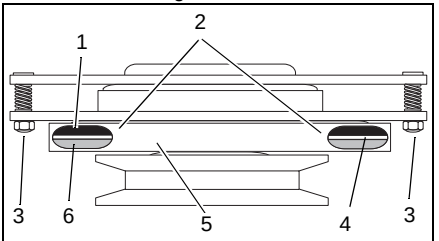
**NOTE:** Ariens recommends having the electric clutch adjusted by a professional. Contact your Ariens dealer.

If the electric clutch fails to engage or disengage properly, begins to make an abnormal noise, or if the mower blade stopping time is too high, check the air gap at the three inspection slots.

**Inspect air gap:**

1. Stop engine, set parking brake, remove ignition key, and wait for all hot parts to cool.

2. Measure air gap between armature and rotor.
   - Minimum: A 0.005 in. feeler gauge should slide between armature and rotor with slight contact.
   - Maximum: A 0.023 in. feeler gauge should slide between armature and rotor with slight contact.




1. Armature
2. Inspection Slot
3. Gap Adjustment Nut
4. Air Gap
5. Electric Clutch
6. Rotor

Figure 27 OE0070

**Adjust air gap:**

**NOTE:** Adjust air gap as evenly as possible.

1. Loosen gap adjustment nut closest to inspection slot.
2. Slide a 0.012 in. feeler gauge between armature and rotor.
3. Tighten gap adjustment nut until there is a slight contact on feeler gauge.
4. Repeat steps 1 through 3 for each inspection slot.

### Test Electric Clutch

1. Start unit, engage and disengage PTO two or three times.
2. Stop engine, set parking brake, remove ignition key, and wait for all hot parts to cool.
3. Recheck air gap between armature and rotor. Adjust air gap if needed.
4. Retest mower blade stopping time:
   - If mower blades stop in 5 seconds or less, the electric clutch is functioning correctly.
   - If mower blades DO NOT stop in 5 seconds or less, the electric clutch MUST be replaced. Contact your Ariens Dealer.

## STORAGE

### Short Term Storage

**IMPORTANT:** NEVER clean unit with high-pressure water or store unit outdoors.

Remove all dirt, grease, leaves, etc. Store in a clean dry area.

Inspect unit for signs of wear or damage. Ensure all fasteners are properly tightened.

### Long Term Storage

Follow all instructions under *Short Term Storage.*

Remove and fully charge battery. Store in a clean dry area.

Drain fuel from fuel tank.

Refer to Engine Manual for the proper engine storage procedures.

Touch up all scratched or chipped paint surfaces.

# TROUBLESHOOTING

| PROBLEM | PROBABLE CAUSE | CORRECTION |
|---|---|---|
| **Engine will not crank/start.** | 1. Safety interlock system is not engaged or is faulty. | 1. Check safety interlock system (see *Safety Interlock System* on page 11). |
| | 2. Fuel tanks empty. | 2. Fill fuel tanks (see *Filling the Fuel Tanks* on page 14). |
| | 3. Fuel shut-off valve closed. | 3. Open fuel shut-off valve. |
| | 4. Discharged battery. | 4. Charge battery (see *Charging the Battery* on page 22). |
| | 5. Poor connection between battery and battery cables. | 5. Tighten battery cables and/or clean battery and battery cables (see *Cleaning Battery and Battery Cables* on page 22). |
| | 6. Spark plug wire(s) loose or spark plug(s) faulty. | 6. Connect spark plug wire(s) or replace spark plug(s). Refer to Engine Manual for detailed instructions. |
| | 7. Faulty electrical system. | 7. Contact your Ariens Dealer. |
| | 8. Faulty engine. | 8. Contact your Ariens Dealer. |
| **Engine runs rough.** | 1. Choke engaged. | 1. Disengage choke. |
| | 2. Air filter cartridge plugged. | 2. Clean or replace air filter cartridge. Refer to Engine Manual for detailed instructions. |
| | 3. Faulty engine. | 3. Contact your Ariens Dealer. |
| **Unit does not move with engine running when using steering levers.** | 1. The transmission bypass lever is engaged. | 1. Disengage transmission bypass lever (see *Moving the Unit Manually* on page 14). |
| | 2. Faulty hydrostatic belt. | 2. Replace hydrostatic belt (see *Hydrostatic Belt Replacement* on page 25). |
| | 3. Faulty transmission. | 3. Contact your Ariens Dealer. |
| **PTO or mower blades do not engage or shuts off.** | 1. Operator presence switch not depressed. | 1. Depress operator presence switch by sitting on seat. |
| | 2. Faulty operator presence switch. | 2. Contact your Ariens Dealer. |
| | 3. Electric clutch connector is loose or disconnected. | 3. Connect the electric clutch connector. See *Hydrostatic Belt Replacement* on page 25 for the electric clutch connector location. |
| | 4. Faulty PTO belt. | 4. Replace PTO belt (see *PTO Belt Replacement* on page 24). |
| | 5. Electric clutch out of adjustment (915051, 055, 057, 059, 501). | 5. Adjust electric clutch (see *Electric Clutch Adjustment* on page 25). |
| | 6. Faulty PTO switch, wires, connectors, or clutch. | 6. Contact your Ariens Dealer. |
| **Engine overheats.** | 1. Engine oil level low. | 1. Add engine oil. Refer to Engine Manual for detailed instructions. |
| | 2. Cooling system plugged. | 2. Clean cooling system. Refer to Engine Manual for detailed instructions. |
| | 3. Faulty engine. | 3. Contact your Ariens Dealer. |

| PROBLEM | PROBABLE CAUSE | CORRECTION |
|---|---|---|
| **Unit moves with engine off and parking brake engaged.** | 1. The parking brake needs adjustment.<br>2. Faulty parking brake. | 1. Contact your Ariens Dealer.<br>2. Contact your Ariens Dealer. |
| **Hour meter continues to run when engine is not running.** | 1. Ignition key is in the run position with engine turned off. | 1. Turn ignition key to the off position. |
| **Unit does not travel in a straight line.** | **NOTE:** Unit should track within 2 feet (0.61 m) of a straight line for 30 feet (9.14 m).<br>1. Incorrect tire pressure.<br>2. Hydrostatic transmission and/or linkage needs adjustment. | 1. Check tire pressure (see *Specifications* on page 30)<br>2. Contact your Ariens Dealer. |
| **Unit creeps with steering levers in neutral lockout position.** | 1. Hydrostatic transmission and/or linkage needs adjustment. | 1. Contact your Ariens Dealer. |
| **Poor cutting quality.** | 1. Mower deck not level or mower pitch is incorrect.<br>2. Dull or faulty mower blades. | 2. Level and adjust pitch of mower deck (see *Level and Adjust Pitch of Mower Deck* on page 19).<br>3. Sharpen mower blades (see *Sharpening Mower Blade* on page 20) or replace mower blades (see *Mower Blade Replacement* on page 20). |

## SERVICE PARTS

Be sure to always use genuine Ariens parts to keep your unit running like new.

| Part No. | Qty | Description |
|---|---|---|
| 03498400 | 1 | 40-Inch Mower Blade (915043, 051) |
| 00173800 | 1 | 40-Inch Mower Blade (915502) |
| 01593900 | 1 | 44-Inch Mower Blade (915055) |
| 01599800 | 1 | 44-Inch Mower Blade (915501) |
| 04919100 | 1 | 48-Inch Mower Blade (915057) |
| 04916400 | 1 | 52-Inch Mower Blade (915059) |
| 01554800 | 1 | Battery |
| 07221000 | 1 | Hydrostatic Belt (915043, 502) |
| 07241400 | 1 | Hydrostatic Belt (915051, 055, 057, 059, 501) |
| 07241800 | 1 | 40-Inch PTO Belt (915043, 051, 502) |
| 07241700 | 1 | 44-Inch PTO Belt (915055) |
| 07241500 | 1 | 48-Inch PTO Belt (915057) |
| 07242900 | 1 | 44-Inch PTO Belt (915501) |
| 07241600 | 1 | 52-Inch PTO Belt (915059) |

## ACCESSORIES

See your authorized Ariens dealer to add these optional accessories to your unit.

| Part no. | Qty | Description |
|---|---|---|
| 71502900 | 1 | Dump Cart |
| 81501200 | 1 | 46-Inch Snow Head (915043, 051, 055, 057, 059) |
| 81501300 | 1 | 54-Inch Dozer Blade |
| 71503200 | 1 | 48-Inch Aerator |
| 71503300 | 1 | 36-Inch Roller |
| 71503400 | 1 | 48-Inch Dethatcher |
| 71503500 | 1 | 15-Gallon Sprayer |
| 71503600 | 1 | Spreader |
| 71504900 | 1 | Sunshade |
| 71503800 | 1 | 48-Inch Lawn Sweeper |
| 81501100 | 1 | Bagger (915043, 051, 055, 057, 059) |
| 71505100 | 1 | Baffle Kit (915043, 051, 055, 057, 059) |

| SPECIFICATIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Model Number** | 915043 | 915502 | 915051 | 915055 | 915501 | 915057 | 915059 |
| **Model** | 1540 | 1540 | 1640 | 1944 | 1844 | 2148 | 2352 |
| **Engine** | | | | | | | |
| Type | Single Cylinder Briggs & Stratton | | | Twin Cylinder Kohler | Twin Cylinder Briggs & Stratton | Twin Cylinder Kohler | |
| Engine Power – HP (kW) at Governed RPM | 15 (11.2) | 15 (11.2) | 16 (11.9) | 19 (14.2) | 18 (13.4) | 21 (15.7) | 23 (17.2) |
| Max Governed RPM | 3400 | 2850 | 3400 | 3375 | 2900 | 3375 | |
| **Speed** | | | | | | | |
| Forward Max. – m.p.h (km/h) | 6.0 (9.7) | | 6.5 (10.5) | | | | |
| Reverse Max. – m.p.h (km/h) | 3.0 (4.8) | | | | | | |
| **Turning Radius** | Zero | | | | | | |
| **Brakes** | Internal Transmission | | | | | | |
| **Electrical** | | | | | | | |
| Starter | Electric | | | | | | |
| Battery | 12 Volt Maintenance Free | | | | | | |
| PTO (Power Take-Off) | Electric Clutch/Brake | | | | | | |
| **Fuel** | | | | | | | |
| Fuel Type | Refer to Engine Manual | | | | | | |
| Fuel Tank Capacity – gal. (L) | 8 (30.3) | | | | | | |
| **Transmission** | Hydrostatic Drive | | | | | | |
| **Size and Weight** | | | | | | | |
| Length – in. (cm) | 76 (193) | | | | | | |
| Width – in. (cm) | 47 (119) | | | 50 (127) | | 55 (140) | 57 (145) |
| Weight – lbs (kg) | 616 (279) | | 660 (299) | 687 (312) | | 714 (324) | 740 (336) |
| Height – in. (cm) | 41 (104) | | | | | | |
| **Tires** | | | | | | | |
| Front Tire Size – in. (cm) | 11 x 4 (27.9 x 10.2) | | | | | | |
| Rear Tire Size – in. (cm) | 18 x 8.5 (45.7 x 21.6) | | | 18 x 9.5 (45.7 x 24.1) | | | |
| Front Tire Pressure – psi (kPa) | 46 (317) | | | | | | |
| Rear Tire Pressure – psi (kPa) | 12 (83) | | | 10 (69) | | | |
| **Mower Deck** | | | | | | | |
| Cutting Height – in. (cm) | 1-1/2 - 4-1/2 (3.81 - 11.4) | | | | | | |
| Cutting width – in. (cm) | 40 (102) | | | 44 (112) | | 48 (122) | 52 (132) |
| **Max. Towing Capacity – lbs (kg)** | 300 (136) | | | | | | |
| **Max. Tongue Weight – lbs (kg)** | 30 (13.6) | | | | | | |

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# 2-Year Limited Warranty

Ariens Company warrants to the original purchaser that consumer products manufactured by Ariens Company will be free from defects in material and workmanship for a period of two (2) years after the date of purchase, and will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein.

The two-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use such as, but not limited to, commercial landscaping, mowing or snow removal services, or golf course or park maintenance, or agricultural or farmstead use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. If any product is rented or leased, then the duration of this warranty is ninety (90) days after the date of purchase.

Genuine Ariens service parts and accessories not purchased with the product covered by this warranty, but which are later purchased and used with that product, are warranted to be free from defects in material and workmanship for a period of ninety (90) days after date of purchase, and Ariens Company will repair or replace any such part or accessory free of charge, except for labor, during that period.

**This warranty is subject to the following conditions, limitations, and exclusions:**

**This warranty is valid only if the following conditions are met:**

- The purchaser must perform maintenance and minor adjustments explained in the owner's manual.
- The purchaser must promptly notify Ariens Company or an authorized Ariens service representative of the need for warranty service.
- Returning the product registration card to Ariens Company will enable the company to contact the registrant with repair or replacement part information.

**This warranty is subject to the following limitations:**

- The purchaser must transport the product to and from the place of warranty service.
- Warranty service must be performed by an authorized Ariens service representative. (To find an authorized Ariens service representative, contact Ariens Company at the website, number or address above.)
- Batteries are warranted only for a period of twelve (12) months after date of purchase, on a prorated basis. For the first ninety (90) days of the warranty period, a defective battery will be replaced free of charge. If the applicable warranty period is more than 90 days, Ariens Company will cover the prorated cost of any defective battery, for up to twelve (12) months after the date of purchase.

**The following items are not covered by this warranty:**

- Engines and engine accessories are covered only by the warranty made by the engine manufacturer, and are not covered by this warranty.
- If the product is equipped with a Peerless gearbox and/or transmission, the gearbox and/or transmission are covered only by the warranty made by Peerless, and are not covered by this warranty.
- If the product is equipped with a Hydro-Gear transmission and/or Hydro-Gear drive components, the Hydro-Gear transmission and/or drive components are covered only by the warranty made by Hydro-Gear, and are not covered by this warranty.
- Parts that are not genuine Ariens service parts are not covered by this warranty.
- Shoes, runners, scraper blades, shear bolts, string trimmer height guide, mower blades, mower vanes, trimmer line, headlights, light bulbs are not covered by this warranty.
- Any defect which is the result of misuse, alteration, improper assembly, improper adjustment, neglect, or accident is not covered by this warranty.
- Products which were not purchased in the United States, Puerto Rico, or Canada are not covered by this warranty. In all other countries, contact place of purchase.

## LIMITATION OF REMEDY AND DAMAGES

Ariens Company's liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. Ariens Company shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## DISCLAIMER OF FURTHER WARRANTY

**Ariens Company makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to Ariens Company, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.**

**This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.**

Form: ALW2-122002

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**⚠ WARNING ⚠**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer birth defects or other reproductive harm.